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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/894,380	06/27/2001	John M. Baron	10005759-1	5550

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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
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EXAMINER

SMITH, ARTHUR A

ART UNIT	PAPER NUMBER
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2851

DATE MAILED: 07/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/894,380

Applicant(s)

BARON, JOHN M.

Examiner

Arthur A Smith

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/28/03 (paper #9) has been entered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 13-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 13-16 recites the limitation "The method of claim 6" in line 1. There is insufficient antecedent basis for this limitation in the claim since claim 6 is directed to an apparatus (camera) and not a method.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bell et al. (USPN 5103254).

In reference to claim 1, Bell et al discloses a method of automatically highlighting focused objects within a preview window comprising the steps of: receiving a digital representation of an image; determining a near focus distance; identifying near portions of objects within the image at the near focus distance; determining a far focus distance; identifying far portions of objects within the image at the far focus distance, and highlight the near portions and the far portions of the objects within the image; col. 7 line 51 - col. 8 line 2. Bell et al. does not disclose disabling highlighting of the near portions and the far portions when a user selectable option is selected. It would have been obvious to one of ordinary skill in the art at the time of the invention to supply a user selectable option to disable the highlighting of the near portions and the far portions (in essence and on/off button) to the focus highlighting method of Bell et al. The focus highlighting method set forth by Bell et al. is similar to other camera functions such as red-eye reduction, data imprinting (date or location of photo stored with image), autofocus, etc. These functions are added to the camera to aid the user in photography. However, as is sometimes the case the user may not require the aid because the function is not necessary at the instant time or the user is an experienced photographer (an experienced photographer would be able to tell what objects are in focus without the aid of highlighting). As a result many of these functions are provided with user selectable disabling options (on/off switches). Therefore, as it is well known in the art to provide a

user selectable disabling options to these type of functions the addition of such an option to the focus highlighting method of Bell et al. would be obvious.

In reference to claim 2, Bell et al discloses wherein the method comprises the step of displaying a digital image including the highlighted near and far portions, col. 3 lines 46-48

In reference to claim 3, Bell et al discloses wherein the method comprises the step of receiving, determining a near focus distance, identifying near portions, determining a far focus distance, identifying far portions, highlight and displaying within a digital camera, col. 7 line 51 - col. 8 line 2 and col. 32-35 (method can be used in a digital camera)

In reference to claim 4, Bell et al discloses wherein the method comprises the step of determining focused portions of the objects between the near portions and the far portions; and highlighting the focused portions, col. 7 line 51 - col. 8 line 2.

In reference to claim 5, Bell et al discloses wherein the method comprises the step of displaying the highlighted focused portions on the digital image, col. 3 lines 46-48.

In reference to claim 6, Bell et al discloses a camera, ref. 10, comprising: an image sensor responsive to a light image projected onto the image sensor, ref. 40, for providing image data, col. 3 lines 27-29; an adjustable focus lens, ref. 14, configured to project the light image onto the image sensor, see fig. 1; a controller, ref. 74, configured to adjust a focus of the adjustable focus lens, col. 4 lines 49-51. Bell et al. does not disclose that the controller, ref. 74, receives the image data from the image sensor, or

that the controller further configured to distinguish portions of the image data that represent focused portions of the light image from portions that are not in focus. Instead, Bell et al. discloses that the controller, ref. 74, controls the image sensor, ref. 40, the A/D converter, ref. 66, the memory, ref. 68, and the gradient, ref. 70. These separate components collectively perform the claimed functions, col. 4 lines 25-42 and col. 4 lines 53-56 under the control of the controller, ref. 74. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate all these components, ref. 40, 66, 68, 70 and 74, into one component and then call that component the controller. This would be done for space saving, all these individual components could be located on one IC. Bell et al. also disclose a display, ref. 24 configured to display the image data together with highlighting distinguishing the portions of the image data that represent the focused portions of said light image from said portions that are not in focus, col. 4 lines 1-6.

In reference to claim 7, Bell et al discloses where the camera comprises a memory storing a contrast evaluation procedure executable by the controller for distinguishing the portions of the image data that represent the focused portions of the light image from the portions that are not in focus, col. 4 line 57 – col. 5 line 12.

In reference to claim 8, Bell et al discloses wherein said image sensor comprises a two-dimensional array of light detectors, col. 3 lines 55-60.

In reference to claim 9, Bell et al does not specifically disclose wherein said adjustable focus lens includes a focusing motor connected to adjust a configuration of optical elements of said adjustable focus lens in response to a control signal from said

controller. However, it is old and well known in the art that motors are inherent in autofocus cameras as the means to adjust the focusing lens.

In reference to claim 10, Bell et al does not specifically disclose wherein said controller is configured to determine contrast values of said light image. However, it is old and well known in the art that autofocus can be carried out by means of contrast detection.

In reference to claim 11, Bell et al does not disclose wherein said controller is further configured to process said image data for storage in a memory. Instead, Bell et al. discloses that image data is processed for storage in a memory by means of the A/D converter, ref. 66, under the control of the controller, ref. 74. It would have been obvious, as discussed above, to combine the A/D converter and the controller on one IC.

In reference to claim 12, Bell et al does specifically disclose wherein said controller implements a lossy compression algorithm on said image data to form compressed image data and stores said compressed image data in a memory. However, a lossy compression algorithm is a compressed storage of the image in which some of the data is lost such as in storage of an image in JPEG form. It would have been obvious to one of ordinary skill in the art to store the image in a lossy form to save memory space. The image is not needed for high resolution reproduction but only to demonstrate the highlighted portions.

In reference to claim 13, Bell et al does specifically disclose disabling said highlighting of said near and said far portions. It would have been obvious to one of

ordinary skill in the art at the time of the invention to supply a user selectable option to disable the highlighting of the near portions and the far portions (in essence and on/off button) to the focus highlighting method of Bell et al. The focus highlighting method set forth by Bell et al. is similar to other camera functions such as red-eye reduction, data imprinting (date or location of photo stored with image), autofocusing, etc. These functions are added to the camera to aid the user in photography. However, as is sometimes the case the user may not require the aid because the function is not necessary at the instant time or the user is an experienced photographer (an experienced photographer would be able to tell what objects are in focus without the aid of highlighting). As a result many of these functions are provided with user selectable disabling options (on/off switches). Therefore, as it is well known in the art to provide a user selectable disabling options to these type of functions the addition of such an option to the focus highlighting method of Bell et al. would be obvious.

In reference to claim 14, Bell et al. does specifically disclose wherein compressing said digital image to provide compressed image data; and storing said compressed image data in a memory. However, a compressed digital image can take the well JPEG form. It would have been obvious to one of ordinary skill in the art to store the image in a lossy form to save memory space. The image is not needed for high resolution reproduction but only to demonstrate the highlighted portions.

In reference to claim 15, Bell et al. discloses wherein said determining said near and said far portions is performed from identified edges of objects contained within the digital representation of an image, col. 5 lines 11-22.

In reference to claim 16, Bell et al. does specifically disclose wherein said highlighting comprises blinking said near and far portions of said image in focus. It would have been obvious to one of ordinary skill in the art to provide modifications to the highlighted regions, such as blinking or even using a color outline. Such a modification would be done in order to increase the visibility of the highlighted area to an inexperienced photographer.

In reference to claim 17, Bell et al. discloses a focus highlighting system comprising: a processor, ref. 74 for highlighting focused portions of an image, col. 4 lines 31-36 and col. 4 lines 54-56 (The processor highlights the focused portions through control of the gradient operator, ref. 70); an autofocus mechanism configured to determine portions of an image within focus, col. 3 lines 27-40; a display configured to display a digital image including highlighting, col. 4 lines 1-6; and a memory configured to store said digital representation of said image, col. 4 lines 25-31. Bell et al. does not disclose a disabling feature which disables highlighting when selected by a user. It would have been obvious to one of ordinary skill in the art at the time of the invention to supply a disabling feature which disables highlighting when selected by a user (in essence and on/off button) to the focus highlighting method of Bell et al. The focus highlighting method set forth by Bell et al. is similar to other camera functions such as red-eye reduction, data imprinting (date or location of photo stored with image), autofocusing, etc. These functions are added to the camera to aid the user in photography. However, as is sometimes the case the user may not require the aid because the function is not necessary at the instant time or the user is an experienced

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photographer (an experienced photographer would be able to tell what objects are in focus without the aid of highlighting). As a result many of these functions are provided with a disabling feature selected by a user (on/off switches). Therefore, as it is well known in the art to provide a disabling feature selected by a user to these type of functions the addition of such an option to the focus highlighting method of Bell et al. would be obvious.

In reference to claim 18, Bell et al. discloses wherein: said autofocus calculates a near focus distance and determines near portions of objects using said near focus distance, col. 7 lines 51-61.

In reference to claim 19, Bell et al. discloses wherein: said autofocus calculates a far focus distance and determines far portions of objects using said far focus distance, col. 7 lines 51-61.

In reference to claim 20, Bell et al. discloses wherein: said portions of said image include said near focus portions and said far focus portions, col. 7 lines 51-61.

In reference to claim 21, Bell et al. does not specifically disclose wherein said highlighting includes blinking. It would have been obvious to one of ordinary skill in the art to provide modifications to the highlighted regions, such as blinking or even using a color outline. Such a modification would be done in order to increase the visibility of the highlighted area to an inexperienced photographer.

Response to Arguments

Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection. The Examiner has withdrawn the

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previous 102(b) rejection using Bell et al. and instead applied a 103(a) rejection. In the detailed discussion of the rejection shown above the Examiner has pointed out that claimed limitation of a "disabling feature" and "... a controller configured to ... receive said image data from said image sensor," are but obvious modifications to the Bell et al. reference.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arthur A Smith whose telephone number is (703) 605 1228. The examiner can normally be reached on Monday - Thursday from 8:00 AM to 5:30 PM. The examiner can also be reached on alternate Fridays during the same hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams can be reached on (703) 308 2847. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872 9318 for regular communications and (703) 872 9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 0956.

AAS
June 26, 2003


RUSSELL ADAMS
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TECHNOLOGY CENTER 2800